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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,017	09/26/2003	Knut Elbers	1/1111-1-C1	9554

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EXAMINER

HURT, SHARON L

ART UNIT	PAPER NUMBER
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1648

DATE MAILED: 10/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/673,017	Applicant(s) ELBERS ET AL.	
	Examiner Sharon Hurt	Art Unit 1648	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 5,6,9-11 and 14-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,7,8,12 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>September 26, 2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I, Claims 1-4, 7-8 and 12-13 in the reply filed on September 7, 2006 is acknowledged.

Claims 5-6, 9-11 and 14-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on September 7, 2006.

Claims 1-4, 7-8 and 12-13 are pending and under examination on the merits.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 7 and 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Neubauer et al. (Virology, 1997, Vol. 239, pages 36-45).

The claimed invention is drawn to an Equine Herpes Virus (EHV) wherein the nucleotide sequence encoding a protein gM is at least 70% absent and wherein the expression of the gene coding for the UL9 homolog is not affected, wherein the nucleotides from 93254 to 94264 are deleted from the EHV strain, wherein the EHV comprises one or more heterologous genes, wherein the EHV is a type 1 or type 4. The claimed invention is also drawn to a pharmaceutical composition comprising the EHV and a pharmaceutically acceptable carrier.

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Neubauer et al. teaches about an Equine Herpes Virus type 1 (EHV-1) mutant devoid of the open reading frame of glycoprotein M (gM) (Abstract). The mutant virus was engineered using the virulent strain EHV-1 strain RacL11, where mice infected with RacL11 showed sign typical of EHV-1 infection (Abstract). The EHV-1 mutant is viable, therefore the gene coding the UL homolog was not affected. The vaccine strain EHV-1 was engineered by inserting the *Eschericia coli LacZ* gene (heterologous gene) (Abstract). A pharmaceutical composition was administered intranasally to mice (page 37, last paragraph). The virus preparation was resuspended in DMEM-5% FCS (carrier) (page 38, top of page).

Absence of evidence to the contrary the EHV-1 mutant described by Neubauer et al. is the same as the instant claimed invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 7-8 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neubauer et al. (Virology, 1997, Vol. 239, pages 36-45).

The claimed invention as described above and further drawn to a kit comprising in one or more containers: (a) isolated wild type protein gM; (b) the Equine Herpes Virus; (c) antibodies that specifically bind the wild type protein gM or the Equine Herpes Virus.

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The teachings of Neubauer et al. are described above. Neubauer et al. did not teach about a kit comprising the Equine Herpes Virus and antibodies.

It would have been *prima facie* obvious to the person of ordinary skill in the art at the time the invention was made to assemble the components taught by Neubauer et al. into a kit as a convenient means of using the pharmaceutical composition taught by Neubauer et al. for use as a protective vaccine. The person of ordinary skill in the art would have been motivated to make the kit because Neubauer et al. teaches that the glycoprotein deficient EHV-1 might be candidates for efficient marker vaccine, because mice that had been infected with the complemented L11ΔgM were protected against challenge with RacL11 virus (page 39, bottom of page). Neubauer et al. also teaches that further studies will focus on the testing of the gM-negative RacH (EHV type 1) virus in horses, because HΔgM could serve as a marker vaccine and as a vehicle for the expression of foreign genes (page 44, last paragraph).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Osterrieder et al. (Virology, 1997, Vol. 232, pages 230-239) teach about the synthesis, processing and the function of the equine herpesvirus 1 glycoprotein M. Osterrieder et al. also teaches about the translation of EHV-1 gM and a truncated gM lacking the aminoterminal amino acids. (Abstract)

Osterrieder et al. (Journal of Virology, June 1996, Vol. 70, No. 6, pages 4110-4115) teaches the Equine Herpesvirus 1 glycoprotein gM and that mutants lacking gM are viable (page 4110, 1st paragraph).

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Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharon Hurt whose telephone number is 571-272-3334. The examiner can normally be reached on M-F 8:00 - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bruce Campell can be reached on 571-272-0974. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sharon Hurt

27 October 2006


BRENDA BRUMBACK
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